

phur, and calcareous waters, etc. There is also a chapter on grape cures, milk and whey cures, and sanatoria for the treatment of phthisis.

Appended is a valuable and extensive bibliography, in which only two American names appear—those of Trudeau and Solly. Solly's work on climatology contains a valuable chapter on European resorts, and presents the American resorts in a manner which compares very favorably with the work of the Webers on Europe.

Americans do not visit American mineral springs as much as they did fifty years ago, when we take into consideration the growth of the nation. The summer exodus is to the seaboard, and resorts like Saratoga and the famous White Sulphur Springs have seen the day of their pre-eminence. On the other hand, people nowadays drink their mineral waters at home, and the consumption of domestic and imported medicinal and table waters is enormous, and is steadily on the increase. Our present consumption of domestic waters now amounts to about twenty-five million gallons, valued at nearly five million dollars. We use three million gallons of imported mineral waters each year.

The authors consider special diseases in the closing chapters, and are conservative as regards the result of treatment. For example, they say: "Syphilis is only to a very limited degree amenable to balneo-therapeutic treatment; ordinary methods of treatment are required. The idea that hot sulphur or other thermal waters can cure it is without foundation." Regarding diabetes mellitus, they speak of the waters of Vichy, Neuenahr, and Carlsbad, and add: "Their application, however, is limited. No complete and permanent cure of established diabetes is known to us for spa treatment; but fair results, such as great temporary improvement, which were regarded as cures, have often been obtained, and are frequently obtained now."

"The management of diet, attention to muscular exercise, and regimen in general have the greater share, and the patient much more readily submits to such management at a spa away from home."

"Phosphaturia is often a cause of great anxiety to students and men of sedentary habits. Spa treatment is rarely required; an increased amount of open-air exercise is frequently sufficient to remove the trouble."

The book abounds in practical suggestions; it tells what to do and what not to do, and ought to be in the hands of every practitioner, whether he has been accustomed to use mineral waters or not. He would then, no doubt, use them more and use them more intelligently.

G. H.

THE CRYSTALLINE LENS SYSTEM: ITS EMBRYOLOGY, ANATOMY, PHYSIOLOGICAL CHEMISTRY, PHYSIOLOGY, PATHOLOGY, DISEASES, TREATMENT, OPERATIONS, AND AFTER-CHANGES, WITH A CONSIDERATION OF APHAKIA. By LOUIS STRICKLER, M.D. Cincinnati, Ohio.

If the assertion which is made by the author in his preface be true—"that the great majority of English-speaking ophthalmologists are ignorant of Becker's classical writings on the crystalline lens"—then his work has been justified, and the elaborate compilation which he

has presented will be acceptable and of value to the profession. The volume before us is a faithful exposition of Becker's views as presented by him in *Die Pathologie und Therapie des Linsensystems*, 1877, and *Zur Anatomie der Gesunden und Kranken Linse*, 1882, and contains, in addition, a most comprehensive review of all that has been published upon the lens since that time. The reviewer, however, questions the value of compilations of this kind, and fears that the ophthalmologist who has not already familiarized himself with the writings of the master will scarcely care to peruse the often dry and second-hand statements of the abstractor.

The profession at large will probably find but little to interest them in a work which deals with a purely technical subject in the language of the specialty to which it belongs, except in so far as it treats of the manner in which the general system may be implicated in the origin and development of opacities of the lens.

It may not be amiss, therefore, to note if the author has been able to refer the cause of cataract to any systemic affection other than the rare instances in which the lens becomes clouded in diabetes. The author, however, seems to have rather neglected this particular phase of the subject, and while he mentions that chronic nephritis may give rise not infrequently to diseases of the deeper tunics of the eye, he does not think it possible to trace any causative relationship between renal disease and cataract. He does not mention the influence of gout in favoring the development of cataract by inducing changes in the choroid and ciliary body, the sources of nourishment of the lens, nor does he call attention to the possibility of uncorrected errors of refraction favoring lenticular haze by inducing changes in the same structures.

In view of the cures of cataract without operation, which have been much advertised of late by certain sanitariums, a word concerning the so-called "absorptive treatment" may not be out of place here. Outside of the rascality which is practised in duping many of the victims of such institutions by the temporary improvement in vision in cases of nuclear cataract, by a dilatation of the pupil with atropine, advantage has undoubtedly been taken of the fact that it is possible in a limited number of cases to retard further degeneration of the lens, or even to induce a partial restoration of transparency in it by a strict regimen of the diet and life of the patient and by the careful correction of all refraction errors. This is particularly true of those forms of cataract which are seen in diabetic, gouty, and rheumatic individuals. There is reason to think, therefore, that many of the improvements in vision which have been reported in these institutions resulted from the rest and attention which the patient received while there. It is well to remember, therefore, that one of the first requisites in the treatment of cataract should be to try and discover if there be anything in the manner of the life of the individual which would tend to interfere with the proper nourishment of the lens; and here the case often passes beyond the province of the ophthalmologist into that of the physician.

The cure of cataract is necessarily, however, almost always a surgical procedure, and consists in the removal of the crystalline lens from the eye, and so brilliant has been the success of modern ophthalmologists in the performance of this operation that it seems not amiss to mention some of the statistics of the results which attend their efforts.

The latest authoritative statement upon the subject is from Knapp

(*A System of Diseases of the Eye*, by Norris and Oliver, vol. iii, p. 818). This author shows that of 600 favorable cases satisfactory vision was obtained by the removal of the lens in 95 per cent., moderate vision in 3 per cent., and complete failure in but 2 per cent.; and of 400 cases, which comprised fifty-seven eyes with serious bodily or ocular complications, good vision was obtained in 90 per cent., moderate vision in 7 per cent., and only 3 per cent. were total failures.

When one reflects upon the extreme delicacy of the anatomy of the eye, and the nicety which is demanded in the performance of so difficult a procedure as the removal of its lens, we cannot help but admire the skill which is employed and the high degree of perfection which is attained by ophthalmologists in restoring one of the most essential of the faculties to so many of the individuals in the community.

The author has appended a bibliography which contains 3433 references, and which brings the literature of the subject up to date. The whole treatise shows that the vast literature has been extensively, and, as a rule, judiciously utilized, so that it will become a valuable work of reference to the ophthalmologist.

W. C. P.

A MANUAL OF PHYSIOLOGY, WITH PRACTICAL EXERCISES. By G. N. STEWART, M.A., D.Sc., M.D. (Edin.), D.P.H. (Camb.). Philadelphia: W. B. Saunders.

THE third edition of this *Manual* shows numerous alterations in the text, while a great many experiments have been added in the practical exercises. The book is splendidly arranged, and shows the tendency in the teaching of this subject at the present time. One might as well teach anatomy or chemistry without practical work as to attempt to give instruction in physiology without practical exercises.

The subject is presented in an unusually attractive, clear, and forcible way, and the practical experiments are arranged so as to make the matter of the text clear and impressive. Many of the experiments are too difficult to be performed except under the direction of a demonstrator. All the subjects are treated very evenly. The text is very well suited for busy medical students, as it does not go too much into details and yet presents the subject completely.

The book opens with a brief introduction on the functions of living matter, and then follows a practical exercise on proteids, carbohydrates, and fats. It would have been an advantage to have given first some consideration of these important food-stuffs in the text, and to have extended the practical work of this exercise. This is very important for medical students, for few medical schools, at least in this country, have separate chairs of physiological chemistry.

The circulating fluids of the body are next taken up, and that part on coagulation of the blood deserves special mention for conciseness and clearness. The author inclines to Lillienfeld's theory as to the formation of thrombosin from fibrinogen in the conversion of the latter body into fibrins.

The chapters on Circulation and Respiration are very good. In the former the author presents his own ingenious method of measuring the

circulation time, which gives very much more accurate results than former methods.

Digestion receives careful consideration in the text, but the practical exercises on this very important subject might be somewhat extended with advantage. The plates showing changes in gland-cells from secretion and in intestinal epithelium during absorption are very good.

The subjects of Nutrition, Dietetics, Excretion and Secretion, which are ordinarily so difficult for students to grasp, are presented in a way that can easily be followed and understood, and at the same time impress the vast importance of these subjects in practical medicine. While it is pointed out that uric acid does not lie on the direct line of metabolism from proteid to urea (p. 437), yet its relation to nucleoproteids and the xanthin-bodies does not receive sufficient consideration (p. 388) to show their close connections.

Internal secretions are rather briefly treated, especially that of the thyroid gland. Wise conservatism is shown in not accepting as established, as is too often done, the statement that the symptoms of athyroidia are due to the removal of the parathyroids, and not of the thyroids proper.

In discussing animal heat the author mentions the well-established fact that injuries of certain parts of the central nervous system will cause rise of temperature and disturbance of heat regulation, but does not call every such area "a heat centre," with functions more hypothetical than proven.

The author states in dealing with nerve and muscle that at least some voluntary contractions are not tetanic in nature. It has always been hard to explain the shortest voluntary movement as a tetanus, and this is certainly a step in the right direction.

A separate chapter is given on Electro-physiology. This is of questionable advantage in a book of this size, intended for medical students, as much of it could be omitted and the electrical phenomena of nerve and muscle could be introduced with those subjects.

Speaking of the degeneration of nerves and muscles, the statement is made (p. 586) "the 'reaction of degeneration' is only obtained when the lesion is situated below the level of the cells of the anterior horn." Doubtless it was intended to include these cells also.

It is pointed out that the evidence formerly adduced to prove the existence of specific trophic nerves fails in its purpose, and that specific trophic nerves do not exist. This does not prove, however, that the nutrition of the tissues is not under the influence of impulses coming from nerve centres. In this connection it is stated (p. 588) that "the nutritive alterations in muscles and salivary glands after section of motor and secretory nerves seem to depend largely on functional and vasomotor changes." Later, however, in discussing the centres of the spinal cord, it is admitted that it is difficult to understand the degeneration of muscle after section of its nerve except on the hypothesis that impulses from the cells of the anterior horns influence their nutrition. It certainly is difficult to explain these changes, or those changes occurring clinically when these cells are involved by disease, except on such an assumption.

The central nervous system is well presented. Following Schäfer, the author applies the term *neuron* to the axis cylinder process or axon given off by the nerve cell. It is a very great misfortune that there is

not greater uniformity in our nomenclature. It would seem much better to apply the term neuron to the unit of the nervous system—the cell with all of its processes.

Altogether the book is a very good one—for students' purposes perhaps the best we have. It will also be quite as useful to the practitioner, being concise and complete, and at the same time abreast of the times, containing the results of progress made in this branch in recent years. The fact that it has reached the third edition in so short a time indicates the favor with which it has been received in the past. With its improvements it will doubtless give still greater satisfaction in the future.

W. S. C.

ATLAS DER SYPHILIS UND SYPHILISAEHNLICHEN HAUTKRANKHEITEN FÜR STUDIRENDE UND AERZTE. VON DR. MED. MARTIN CHOTZEN, Heft xi., 1898. Hamburg and Leipzig: Leopold Voss, 1898.

ATLAS OF SYPHILIS AND SKIN DISEASES RESEMBLING SYPHILIS.

THESE two parts, containing thirteen plates, presenting twenty-two portraits of various syphilitic lesions and lesions resembling syphilis, complete this excellent *Atlas*. The greater number of the portraits are those of the late lesions of syphilis, such as serpiginous ulcer of the scalp and forehead, paronychia and ulcerating onychia, ossifying periostitis of the legs, the last being an excellent reproduction of a skiagraph. Four plates are devoted to the lesions of hereditary syphilis and one to syphilitic affections of the larynx and eye. Upon the whole the plates are quite up to the standard set in the preceding parts, which have already been noticed; and the *Atlas* will be found a very useful aid in recognizing syphilitic diseases and in distinguishing them from those affections which are apt to be mistaken for them.

M. B. H.

THE AMERICAN YEAR-BOOK OF MEDICINE AND SURGERY: BEING A YEARLY DIGEST OF SCIENTIFIC PROGRESS AND AUTHORITATIVE OPINION IN ALL BRANCHES OF MEDICINE AND SURGERY. Drawn from journals, monographs, and text-books of the leading American and foreign authors and investigators. Collected and arranged with critical editorial comment under the general editorial charge of GEORGE M. GOULD. Illustrated. Philadelphia: W. B. Saunders, 1899.

IN examining the current issue of the *Year-book* we are impressed first with its value as an illustration of certain general movements in medicine. Thus in the infectious diseases we note that the literature of yellow fever for the past year has been much more extensive than usual, whereas the literature upon bubonic plague, which had been occupying so much attention and which filled such a considerable space in the *Year-book* for 1898, has diminished very considerably. The editors of the section on General Medicine insist more strongly than ever upon the value of the Widal reaction. In particular it has led to the recognition of the frequency of typhoid infection without the characteristic intestinal lesions. Probably it was impossible, on account of its recent appearance, to pay any attention to the work that has been done

in tropical disease as a result of the recent Spanish-American war, but we shall expect to see this in the succeeding issue. A slight error in arrangement is noted in the section on Infectious Disease—that is, the inclusion of cases of streptococcic infection under the head of relapsing fever. In the section on Tuberculosis there is further confirmation of the apparently very doubtful utility of sera employed therapeutically. The results of some of the recent work upon metabolism are also noted. In the section on Surgery we are most impressed by the paramount importance of the work upon the gastro-intestinal tract, almost one-half of the abstracts being devoted to this branch. In the other sections it is of interest to note the increased amount of work devoted to obstetrical pathology and the growing conservatism of the gynecologist. The nervous section is well written, but many valuable articles have unquestionably failed to receive recognition, and we believe that they might well have replaced some of the abstracts that have been inserted. Thus, a cursory examination of the references failed to reveal any to the *Archiv der Psychiatrie*, perhaps the most important neurological journal published; nor were other leading foreign journals cited as frequently as would seem to be desirable. The sections on Physiology and Legal Medicine are remarkable examples of condensation, particularly the latter, Dr. Johnson appearing to have read pretty nearly everything in his province and noted it, if only in a very few words. The illustrations are rather various in value, the result, of course, of the fact that they have been obtained from very different sources. Nearly all of them are good, although we think that Plates I. and IV. are decidedly less successful, and certainly less illustrative than the others. The plates taken from Ziegler's *Beiträge* are very beautiful, and the one illustrating Dr. Posey's article on Congenital Malformations of the Iris is very clear and satisfactory. Of course, a certain number of repetitions are inevitable, but it seems that Zeehuisen's article on a method of dilating the œsophagus need not have been abstracted at length in two sections. The most serious defect in the work is, we believe, the absence of any indication, excepting a sort of apologetic note in the preface, of the period of time represented by the literature in the present volume. Of course, one can form a pretty good idea of what this is from the dates of the references, but it would be far more satisfactory, we believe, both to the editors and the readers, if the latter knew just what limits were determined upon, and therefore could understand why certain articles were omitted. We have more freedom in speaking of blemishes in this work than we should have deemed justifiable in regard to another, for it is practically indispensable to a physician who has any desire to keep himself familiar with current medicine in more than a single small branch. Medical literature is at present so abnormally enormous that without some satisfactory *résumé* no one can hope to keep even approximately abreast of it. It is a pity, we think, that some method has not been devised whereby books as well as articles could be treated in this manner; but the difficulties in the way of such an undertaking are obviously considerable. There is no question that the *American Year-book of Medicine and Surgery* is superior to any similar publication in the English language, and for convenience and compactness easily surpasses its German rivals. Sometimes, indeed, we feel that compactness has been slightly overdone, but this is certainly a fault in the right direction. The work can be cordially recommended.

J. S.

PROGRESS
OF
MEDICAL SCIENCE.

MEDICINE.

UNDER THE CHARGE OF

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Phlegmasia Dolens, or Milk Leg, in Typhoid Fever.—J. M. DA COSTA (*Boston Medical and Surgical Journal*, March 23, 1899) considers this interesting complication as illustrated by soldiers admitted to the Pennsylvania Hospital. Phlegmasia dolens is not a common occurrence in typhoid fever. The general percentage of cases showing this complication in the hospital was not over 1 to 2 per cent. Murchison, in his treatise, estimated it at 1 per cent. There were, however, thirty cases, or almost 14 per cent., among 215 cases of typhoid fever in soldiers admitted to the hospital. In eighteen of these thirty cases the left leg was affected alone in three, the right alone in two, and both in thirteen, the latter generally beginning on the left side when not appearing simultaneously in both. Da Costa thinks that the greater tendency of this complication to occur in soldier patients may possibly be attributed to relaxation with distention of the venous system in the legs, due to marching, thus predisposing them to the disease. The cases occurred in those patients in whom the typhoid fever had been very severe, and generally at the end of the fever. He thinks that the primary factor in the etiology of the disease is a thrombosis of the veins, and not a phlebitis or periphlebitis, as was promulgated by Sir James Paget. Da Costa thinks that the phlebitis is a secondary process, the thrombosis being primary. The cases should be treated by elevation of the leg; application of compresses wet with lead and opium lotion, or witch-hazel distillate; laxatives, in constipation; in persistent pain, belladonna plaster strips along the veins; absolute rest in bed; continued mechanical support of bandages, etc., after the patient gets out of bed, until the veins recover their tone and all symptoms of obstruction are past. Massage should be avoided as long as there are signs of venous disturbance.

REVIEWS.

THE MINERAL WATERS AND HEALTH RESORTS OF EUROPE. By HERMANN WEBER, M.D., F.R.C.P., and PARKES WEBER, M.D., F.R.C.P., etc. 8vo., pp. 524. London: Smith, Elder & Co., 1898.

THE authors of this work have rendered great service to medical literature. Hermann Weber, the father of the junior author, is now in his seventy-sixth year, and although born and educated in Germany, has long been a resident of London, and for over forty years has been prominently identified with the Royal College of Physicians. At the outset of the present year Her Majesty Queen Victoria conferred upon him the honor of knighthood. Sir Hermann Weber is therefore now in that choice list of British subjects whom the Queen delighted to honor. The son, F. Parkes Weber, bears an honored name, and upon him, no doubt, has fallen in a large measure the burden of this very complete volume. The present publication is a revised and enlarged edition of the *Spas and Mineral Waters of Europe*. We scarcely realize in America to what an enormous extent hydrotherapeutics is employed in European countries. With the exception of a few fashionable resorts and perhaps a dozen mineral waters that have been successfully introduced in this country, the very names are unfamiliar. The authors have gathered from every corner of Europe information as to waters and watering-places; what they are and for what purposes useful; how to reach them and what resident physicians may be employed—in fact, everything relating to mineral-water resorts, climatic and hydrotherapeutic treatment, diet, exercise, and general regimen.

Speaking of the necessity for some knowledge of the character and qualities of the local medical men, the authors well say that success depends not only on an "intimate knowledge of the disease and the constitution, but on a certain sympathy, in the wider sense of the word, which arises from an insight into the mental condition and character of the patient, and which enables the doctor to put himself into accord with him and express his advice in such a way that it induces the patient to follow it. It is therefore necessary to find, if possible, a doctor at the spa who is conscientious, intelligent, sympathetic, and firm. Shakespeare would have been the greatest physician, and among recent doctors Sir William Gull owed his greatest success to such qualities."

The resident physician at a health resort doubly needs them, for, as a rule, he meets his patient in the sick-room for the first time. The idiosyncrasies of the invalid, the long history of illness, must be met by peculiar qualities in the attendant; therefore, a guide, such as this work, enters into details as to persons and places that must afford great satisfaction to both the patient and his physician.

The waters are classified as simple; muriated or common salt waters; simple alkaline waters; muriated alkaline waters; sulphated alkaline waters; sulphated and muriated sulphated waters; iron, arsenical, sul-